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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,336	07/02/2002	Ilia Greenblat	56162.000386	8338

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EXAMINER

PAN, DANIEL H

ART UNIT	PAPER NUMBER
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2183

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/064,336

Applicant(s)

GREENBLAT ET AL.

Examiner

Daniel Pan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10 and 14-26 is/are rejected.
- 7) ☒ Claim(s) 8, 9 and 11-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09/24/02 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/12/02, 03/31/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. Claims 1-26 are presented for examination.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 10, 14, 16, 17-19, 21, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCloghrie et al. (6,286,052) in view of Tremblay et al. (5,925,123).

3. As to claims 1, 3, 16, 17, McCloghrie disclosed a system including at least :

a) means [222][208][210] for processing plurality of protocols including ATM, frame relay, Ethernet and IP (see the library functions to implement protocols in col.6, lines 27-42, see the network devices 208 and 210 as the local functional ports of 222 in col.5, lines 50-58, see col.7, lines for the ATM , frame relay , see the Ethernet in col.2, lines 35-44 for background).

b) the means being programmable using a set of library commands (see the software library functions in col.6, lines 27-42);

c) protocol processor [228] (see col.6, lines 27-42) for performing control and network processor for performing data plane processing (see the circuit components for exchanging data to other LANs in col.6, lines 37-42).

4. McCloghrie did not specifically show the ALU, the load/store, the and the register file as claimed. However, Tremblay disclosed a system including ALU (see col.9, lines 12-20), a load /store unit (see the load and store operations handled by the execution unit IEU in col.19, lines 1-4), and register file (col.19, lines 9-11). It would have been obvious to one of ordinary skill in the art to use Tremblay in McCloghrie for including the ALU, the load/store and the register file as claimed because the use of Tremblay could provide McCloghrie the ability to perform calculations necessary for the load and store data from/into the register file in addition to the internal memory, thereby reducing the latency of the reading and writing cycle, and it could be readily achieved by reconfiguring the ALU , load/store, and the register file of Tremblay into McCloghrie with modified control parameters, such as the RT?W ports and data width, so that the specific access ports of the Tremblay could be recognized by McCloghrie, in order to provide the enhanced performance, and in doing so , provided a motivation.
5. As to the preload/bump unit , since no specific type of the preload and bump operations has been reflected into the claim, it is read as any type of the loading processing, and Tremblay taught already an execution unit for handling all the operations of load/store (col.19, lines 1-4), therefore, it encompassed all type of loading process, such as the preload and bump,
6. As to the language "single chip" in the preamble, since no structure of the single chip has been recited into the claim body to describe the single chip, it is treated

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as the field of use, and not given a patentable weight. Applicant is welcome to provide feedback in the next response.

7. As to claim 2, McCloghrie also included a program sequencer (see the program scheduler 320 in col.7, lines 15-20).

8. As to claim 10, see paragraph 11 below.

9. As to claim 4, see the address calculation by the ALU for the load and store address in col.9, lines 12-20).

10. As to claim 14, McCloghrie also included interface agent for external connection (see LAN bus 206)).

11. As to claim 18, since no specific format of fetch , decode , address, execute, and write has been reflected into the claim, these features are as treated as standard features of any computer system. Examiner believes that McCloghrie did have these standard features, otherwise, the application program could not have been executed (see col.4, lines 37-55).

12. As to claim 19, McCloghrie also included ring network (see Token Ring in col.1, lines 25-35)

13. As to claim 21, as to the doorbell agent, based on applicant's disclosure, the doorbell is a companion or a compound coupled with a network processor core to receive requests (see applicant's page 69, lines 24-28). McCloghrie also taught a doorbell for receiving requests (see the contacted application program 224 for the retrieval of the requested information in col.8, lines 16-21).

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14. As to claim 22, McCloghrie's application program was also used for servicing the request (see the retrieval of the requested information col.8, lines 16-2).

15. Claims 20, 23,24, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCloghrie et al. (6,286,052) in view of Tremblay et al. (5,925,123) as applied to claims 17,19 above, and further in view of Edens et al. (6,611,537) .

16. As to claim 20, neither McCloghrie nor Tremblay specifically showed the shared ring interface as claimed. However, Edens taught a shared ring interface (see the shared wire pair with the ring network in col.22, lines 46-58). It would have been obvious to one of ordinary skill in the art to use Eden in McCloghrie for including the shared interface with ring network as claimed because the use of Eden could provide McCloghrie the capability to adapt to different type of network connection, thereby expanding the system structure of the network, and because McCloghrie did disclose the use of ring network (see col.1, lines 25-35), which was a suggestion of the need of including a sharable ring network interface in order to connect the existing network.

17. As to claims 23, 24, Edens also sent message onto the ring, and also included DMA (see col.93, lines 29-31 for DMA, see col.52, lines 1-12 for message sending).

18. As to claim 26, Dens also included debug module (see the debug in col.91, lines 45-52).

19. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCloghrie et al. (6,286,052) in view of Tremblay et al. (5,925,123) as applied to

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claims 17,19 above, and further in view of Edens et al. (6,611,537) as applied to claim 20 and further in view of Rostoker et al. (5,864,554) .

20. As to claim 25, neither McCloghrie nor Tremblay, nor Edens specifically showed the CRC, encryption, and the hashing module as claimed. However, Rostoker disclosed a network interface system including at least a CRC (col.10, lines 55-63). It would have been obvious to include the CRC into McCloghrie because it could provide additional data processing function to McCloghrie, and since no specific format of the CRC has been reflected into the claim, the advantages of using the CRC in the conventional system could have been equally applicable into McCloghrie.

21. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCloghrie et al. (6,286,052) in view of Tremblay et al. (5,925,123) as applied to claim 1,4 above, and further in view of Yamaura (6,189,086) .

22. As to claim 5, neither McCloghrie nor Tremblay specifically showed the effective address was sum of the content of a first register and the shifted number of bits in a second register as claimed. However, Yamada disclosed a system including a generation of effective address by adding a value of a register to a shifted value in a second register (second register not explicitly shown, see col.2, lines 29-35, col.10, lines 64-67, col.11, lines 1-6, lines 46-64). It would have been obvious to one of ordinary skill in the art to use Yamada in McCloghrie for providing the effective address as sum of a value with shifted number of bits as claimed because the use of Yamaura could provide McCloghrie the control capability to accept a specific portion of the address data, thereby eliminating extra address length , and therefore, reducing the instruction

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width, and it could be done by defining the shifted value, such as the displacement address, of Yamaura into the configuration file of McCloghrie so that the generation of the effective address by the sifted address value could be recognized by McCloghrie to provide the efficiency of the address in scheme, and for the above reasons, provided a motivation.

23. AS to the absolute address, Yamaura also included absolute address (see absolute address designated by the instruction code in col.6, lines 14-32).

24. Claims 6, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCloghrie et al. (6,286,052) in view of Tremblay et al. (5,925,123) as applied to claim 1 above, and further in view of Yoshida et al. (5,371,887).

25. As to claim 6, neither McCloghrie nor Tremblay specifically showed the first register file and the second register as claimed. However, Yoshida disclosed a system including a first register file and second register for a respective task (see each queue provided with a register file in col.3, lines 3-52, fig.1 for the memory structure). It would have been obvious to one of ordinary skill in the art to use Yoshida in McCloghrie for including the first and second register files as claimed because the use of Yoshida could provide McCloghrie the storage capability to adapt to more than one task at a predetermined sequence, therefore providing the processing of respective tasks concurrently, and it could be achieved by predefining the first and second register files of Yoshida into McCloghrie with modified access ports for reading and writing so that the first register file and second register file of Yoshida could be recognized by

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McCloghrie in order to achieve the enhanced task processing concurrency, and in doing so, provided a motivation.

26. As to claim 7, Yoshida also included task ID (see the address used for specifying the task in col.3, lines 40-44, col.9, lines 42-47).

27. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCloghrie et al. (6,286,052) in view of Tremblay et al. (5,925,123) as applied to claims 1,14 above, and further in view of Rostoker et al. (5,864,554) .

28. Neither McCloghrie nor Tremblay specifically showed the CRC, encryption, and the hashing module as claimed. However, Rostoker disclosed a network interface system including at least a CRC (col.10, lines 55-63), hashing (see the hashing algorithm 546 in Col.19, lines 58-67, col.20, lines 1-31), and encryption (see encrypted video data in col., lines). It would have been obvious to one of ordinary skill in the art to use Rostoker in McCloghrie for including the CRC, hash, and encryption as claimed because the use of Rostoker could provide McCloghrie the additional functions to adapt to specific circuit requirements of the system, such as the CRC, Hashing and encryption, and because Rostoker taught the use of CRC, hash, and encryption in a network environment, one of ordinary skill in the art should be able to recognize the applicability of Rostoker into McCloghrie's network in order to provide the enhanced functions for external interface, and in doing so, provided a motivation.

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29. Claims 8, 9, 11, 12, 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. None of the prior art of record further teaches the third register file for storing register values for the current task that are not stored in the first register file. Yoshida included a third register file (see [task execution queue 2 register file] in fig.1), but it was not used for storing register values for the current task that are not stored in the first register file.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Pan whose telephone number is 703 305 9696, or the new number 571 272 4172. The examiner can normally be reached on M-F from 8:30 AM to 4:00 PM.

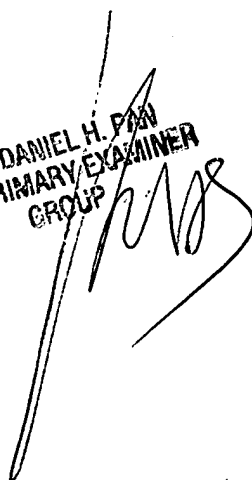
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chan, can be reached on 703 305 9712, or the new number 571 272 4162. The fax phone number for the organization where this application or proceeding is assigned is 703 306 5404.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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21 Century Strategic Plan

DANIEL H. PAN
PRIMARY EXAMINER
GROUP

A large, stylized handwritten signature in black ink, likely belonging to Daniel H. Pan, is written over the stamp.